Job Risk Assessment

Document Control No.: ***WRA-08-4***	**Date Completed:** 7/8/2010	**Location:** Yerington Mine Site
Project Name: **Vadose Zone Investigation Work Plan Sonic Drilling and Monitor Well Installation**	**Job Description:** Drill and collect soil cores using sonic drilling technology at 13 planned locations. Drill to top of groundwater at 10 of those locations and collect soil samples for geochemical and geotechnical analysis. At 3 locations continue into aquifer to the alluvium/bedrock contact. Collect zonal groundwater samples and install a permanent 2" PVC well at the selected depth.	**Risk Assessment Leader:** Penny Bassett (BC) **Risk Assessment Team:** Jack Oman, John Batchelder, Ken Thatcher (Boart), Brad Gibson (Boart), Sarah Everman (BC) **WRA Reviewed & Authorized to Proceed:** **SIMOPS:** ☑ YES ☐ NO **Designated PIC:** To be determined

Brown AND Caldwell

Work Plan (List Job Steps) List the jobs required to complete the project scope in the sequence they are carried out.	Any tools or heavy equipment needed? If YES, What Type	Is this a SIMOP? If YES, Include in Mitigation Plan.	Do any of the *Golden Rules of Safety* apply? If YES, Which of the 8?	Which of the 8 energy or biological root sources could possibly be involved in this job?	**What** would be the result of exposure to a biological or energy source? (e.g., Bites, Slips, trips, falls, exposures, electrocution, injury, death, etc.); and **How, where, or when** could an uncontrolled release or unwanted contact with a biological or energy **Note:** Humans are biological sources, and their physical abilities, competency, and training should also be considered here.	Environmental Impacts Could there be a release to the air, soil or water, and or, will a waste be generated? If YES, What?	Pre-Mitigation Risk Evaluation Frequency	Consequence	Likelihood	Risk Score	Permit(s) Required? If YES, What kind?	Energy / Biological / Waste Management Plan List control measures required to eliminate, control, or protect against unwanted contact with an uncontrolled biological or energy source to minimize the risk of injury or environmental Impact. **Hierarchy of Controls:** Elimination, Substitution, Isolation, Engineering/ Administrative, PPE	Who is responsible for Hazard Mitigation? Name or Title	Post-Mitigation Risk Evaluation Frequency	Consequence	Likelihood	Risk Score
General Hazard: Biological - Stinging insects - Scorpions, snakes - Other wildlife (coyotes)	**No**	**No**	**No**	Biological	**Insects:** Insect stings can cause allergic reaction, even in those not previously known to be allergic. Can cause respiratory distress, itching, pain, rash. **Scorpions/snakes:** Scorpion sting is a lot like a wasp sting, very painful; can be very hard to see until you are right on them; tend to be most active a dawn & dusk. **Coyotes:** Could be aggressive if work site is near den.	**No**	Unusual Exposure	Serious Consequence	Unusual but possible	Low Risk	**No**	**Insects:** Identify workers with special sensitivities and be prepared with emergency treatment; keep Sting-Ez at job site to provide relief from pain and rash; monitor worker for worsening reaction for ~2 hrs. **Scorpions/snakes:** Inspect work area before setting up; rattle nearby bushes with stick. **Coyotes:** Inspect work area before setting up to determine if potential wildlife hazards.	All workers	Unusual Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk
General Hazard: Driving - Mine site roads - Public roads in town (low speeds) - Public highways (high speeds)	**No**	**No**	**Yes** Driving Safety	Motion Biological	**Mine roads:** Areas with steep embankments; potential heavy equipment on roads. **Town roads:** Low speed collision with other drivers or pedestrians; drunk drivers. **Highways:** High speed collision or loss of control with v. serious consequence; drunk, reckless, or distracted drivers.	**No**	Frequent Exposure	Very Serious Consequence	Unusual but possible	High Risk	**No**	***All Driving: No use of cell phone or other distractions while vehicle is moving.** **Mine roads:** Observe mine speed limit of 25 mph; be aware of other activity on site. **Town roads:** Observe posted speed limit; be aware of pedestrians and other drivers. **Highways:** Observe posted speed limit; avoid passing on 2-lane hwys if possible; drive with daytime headlights to be more visible.	All workers	Frequent Exposure	Serious Consequence	Remotely possible	Low Risk
General Hazard: Weather - Heat stress (hot summer weather) - Cold stress (cold mornings) - High wind conditions & dust storms - Rain & electrical storms - Snow storms	**No**	**No**	**No**	Thermal Motion Electrical	**Heat stress:** Thermal hazard in summer months, workers can become dehydrated, disoriented, less aware of hazards if overheated, sunburn. **Cold stress:** Cold mornings and/or wet conditions can cause cold stress; workers lose dexterity, distracted, potential frost bite. **Wind:** Wind speeds of 20-40 mph are not uncommon, can blow loose items to strike workers, dust can cause limited visibility or irritants in the eyes. **Rain/electrical storm:** Lightning strike to person or equipment could cause burn or electrocution; rain can make walking surfaces slippery and contribute to cold stress. **Snow:** Heavy snow and create white-out with limited visibility; slippery driving conditions.	**No**	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	**No**	**Heat Stress:** Maintain enough water at the work site to keep workers hydrated; provide shade when posisble; monitor worker condition for signs of heat stress. **Cold Stress:** Workers should wear sufficient clothing, change out of wet clothing if possible; be aware of limited desterity; monitor worker condition for signs of cold stress. **Wind:** Tie down or contain loose items on windy days (tent canopy, boxes, etc); shut down operations if winds become severe. **Rain/electrical storm:** Shut down operations on drill rig if lightning visible anywhere on horizon, wait 30 minutes since last strike to restart; be aware of slippery surfaces and put down materials to create traction if posisble. **Snow:** Stop work if visibility is too restricted in white-out condition; do not attempt to drive in white-out if you cannot adequately see the road.	All workers	Occasional Exposure	Serious Consequence	Remotely possible	Low Risk
A. Mobilize equipment to the site - Mobilize drill rig and support vehicles - Mobilize well development rig	**Yes** Air knife rig; Drill rig, support truck; Transport trailer; Development rig	**No**	**Yes** Driving Safety	Motion Biological Chemical	**Motion:** Movement of large vehicles on highway can result in collision or loss of control; hazardous weather conditions can create additional driving hazards and poor visibility; loading and unloading supplies onto vehicles or vehicles onto transport trailers can result in hand, back or other injuries. **Biological:** Human error, lack of sleep, impaired judgement, cell phone distractions can result in collision or loss of control. Other drivers on highway can be the cause of an accident, they can enter your driving zone, collision. **Chemical:** Potential exposure to diesel fuel or other vehicle fluids during refueling or if equipment overturns and spills.	**Yes** Potential fuel spill if equipment overturns	Unusual Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	**No**	**Motion:** Follow safe driving procedures, proper following distance; ensure loads are secured; modify driving speed based on weather conditions or postpone trip if conditions are unsafe; only trained and competent persons can operate forklift/skid loader and must follow safe procedures. **Biological:** Drivers should be trained, liscenced, have driver safety training. Cell phone use while driving is not allowed. Be cognizant and aware of other drivers, watch mirrors, look ahead, allow sufficient distance between other vehicles, follow defensive driving procedures (Smith system 7 keys). **Chemical:** Notify fuel station attendant or emergency responders if fuel has spilled so they can use materials to control or cleanup spill, be aware of increased fire potential and keep distance.	Boart drill crew	Unusual Exposure	Very Serious Consequence	Remotely possible	Low Risk
B. Unload equipment or supplies from delivery trucks - Unload forklift/skid loader from trailer - Unload supplies from delivery vehicle with forklift or skid loader	**Yes** Forklift or skid loader	**Yes**	**No**	Motion Gravity Chemical Biological	**Motion:** Movement of skid loader could strike persons or equipment, backward motion of loader could strike person, not see other obstacles; pinch points while positioning load or straps. Laydown area is bisected by a main travelway, potential for vehicles to enter as unloading or to speed. **Gravity:** Unbalanced or too heavy a load could fall from forks or tip equipment; driving with raised load or on side slope could tip equipment. **Chemical:** Only chemicals expected to be handled are bagged cement and sand, punctured bag could spill small quantity and cause dust inhalation hazard. **Biological:** Untrained workers may be unaware of safe operating procedures and put themselves in risky situations.	**No**	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	**No**	**Motion:** Ensure backup alarm is in working condition, be aware of workers on foot in area; wear gloves when handling loads, straps or chains. **Gravity:** Know the rated lifting capacity of the equipment and the load, do not overload; do not drive with a raised load on uneven ground surface/side slope. **Chemical:** Be aware when handling chemicals, be sure MSDS is available, have dust masks available if needed. **Biological:** Only trained and qualified operators allowed to operate forklift or skid loader. Truck drivers must wear hardhat, long sleeves, glasses and must sign in/out at delivery site.	Boart drill crew	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk

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C. Mark out drill locations and conduct preliminary utility location survey and one-call service. - Place wood stake at proposed borehole location (<12" penetration) - Scan 20' radius around borehole with electromagnetic,GPR or other - Paint markings for one-call service	**Yes** Locating equipment, GPR	**No**	**No**	Motion	**Motion:** Walking on uneven ground surface could result in tripping hazards or twisted ankle; walking while looking at instrumentation could be distracting. Motion of hammer could strike worker's hand and wood stake could cause slivers **Gravity -** Ergonomic hazard of lifting awkward sized load (geophys equipment) or possible heavy load.	**No**	Occasional Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk	**No**	**Motion:** Visual inspect area before beginning survey to identify hazard areas; minimize looking at survey meter while walking or take only brief glances while still watching walking path. Wear gloves when handling stakes and using hammer. **Gravity** - get assistance to lift heavy or awkward loads as needed.	Spectrum Geophysics	Occasional Exposure	Notable Consequence	Conceivable but unlikely	Minimal Risk
D. Clear boreholes for potential underground utilities using hand auger and/or air knife methodologies. - Cannot clear actual borehole location because shallow soil sample must be collected. Clear around borehole. - Clear to depth of 6.5' - Unattended hole must remain covered or backfilled until drilling operations commence. - Visual check of hole to confirm no utilities encountered.	**Yes** Air knife & vac truck	**No**	**Yes** Ground Disturbance	Motion Electrical Pressure	**Motion:** Use of hand auger could result in twisting and back strain. Flying debris/soil during air knifing. **Electrical:** Potential for "soft" contact with underground electrical line, potential to hit it but not likely to break insulation. **Pressure** - High pressure air from air wand could injure eyes or skin if directed at a person. Noise from air knife could injure hearing. Suction of vacuum could latch on to clothing, skin or body parts and cause bruising or abrasion.	**No**	Frequent Exposure	Serious Consequence	Unusual but possible	Substantial Risk	**Yes** Ground Disturbance	**Motion:** Use proper body position and trade off workers when doing hand auger (collapse of hole trapping auger is not expected in this material type); face shield required when using air knife. **Electrical:** Use mirror or light to inspect hole when something is encountered to identify if it is utility or just a rock. **Pressure** - Only trained and certified operators, reminder to never point wand at a person. Turn off vacuum if need to unclog suction hose.	Boart drill crew	Frequent Exposure	Serious Consequence	Unusual but possible	Substantial Risk
E. Drill boreholes to planned depth (Sonic Drill) - Set drill rig at cleared borehole location - Drill borehole and recover soil cores in plastic sleeves - Use fixed crane or air hoist on pipe truck to handle casing - Geologist to examine drill cuttings and log soil lithology - If soil slough not collected, use skid loader to spread out	**Yes** Drill rig, pipe truck, crane, winch hoist, skid loader	**Yes**	**Yes** Ground Disturbance	Motion Gravity Pressure Biological Chemical Thermal Electrical	**Motion:** Movement of drill rig, crane and mast could strike someone; downward or rotating motion of drill head could entangle a person; swing out of drill head/core barrel could strike worker; handling or connecting drill pipe could cause hand, back or body injury; movement of wire rope up and down and connection with drill pipe could strike, entangle, cut workers; handling and cutting core sleeves could result in laceration. Movement up/down stairs on deck worker could fall/trip; handling soil cores and dropping them down slide chute, sharp edges, hand, muscle injury. Swinging motion of drill rod moving to/from rack, dropped rod could crush foot. **Gravity:** Raised mast creates potential hazard of falling objects or dangling cable lines; working on drill deck at 4' above ground creates falling hazard; handling heavy drill rod/core barrel could result in hand or back injury. Stacked rods in finger board could fall when unattended. **Pressure:** Pressurized hydraulic lines could spray hot fluid or strike a person; noise pressure creates hearing loss potential. **Biological:** Inexperienced or unbriefed visitors entering work area are at risk of numerous hazards. **Chemical:** Potential contact with diesel or gas fuel when refueling rig or equipment (fire hazard), potential contact with contaminated groundwater (in select locations on the mine site) could cause minor skin irritation. **Thermal:** Core barrel, generator, motor and other parts of drill rig can become very hot and cause thermal burn. **Electrical:** Risk of contact with overhead power lines in select areas or with underground utilities causing serious burn, injury, electrical shock.	**Yes** Potential release of fuel or hydraulic fluids to soil	Continuous Exposure	Disastrous Consequence	Quite Possible	Very High Risk	**Yes** Ground Disturbance	**Motion:** Only authorized persons allowed in drill zone, communicate with workers when entering drill zone; Stay outside of swing zone when bringing core barrel to surface; wear leather or rubber palmed gloves when doing any manual handling including making pipe connections; use hooked blade or scissor type cutting tools to open core sleeves; complete ground disturbance permit. Use handrail, 3-pt contact when going up/down stairs; wear gloves when handling soil cores on chute; proper placement of feet out of strike zone if rod were to fall. **Gravity:** Ensure loose equipment or cables are adequately secured; ensure railings installed on drill deck and stairs; keep trap door closed when not in use and mark hazard areas; use crane/hoist to handle heavy materials (casing, core barrel), complete lifting permit. Proper placement of drill rod in rack and wrap with strap or winch line to secure rods. **Pressure:** Pre-operation inspections of equipment to identify potential failures before they happen; wear hearing protection. **Biological:** Place barricades or caution tape to demark restricted area and keep unauthorized persons out; ensure all operators are trained and qualified on each piece of equipment. **Chemical:** Protect against drips and spills when refueling (plastic tarp or work on pavement); wear rubber palmed or nitrile gloves when handling equipment that has been in contact with suspected contaminated groundwater. **Thermal:** Monitor temperature of core barrel (by feel or with thermal gun) and wait for it to cool before handling or cool with water on exterior; be aware of other hot components on drill and wear gloves when working around. **Electrical:** Inspect work area for presence of overhead power lines, use a spotter if working within 40 feet; do not move drill with raised mast. Confirm utility clearance has been completed at exact borehole location by checking GD permit.	Boart drill crew	Continuous Exposure	Serious Consequence	Remotely possible	Substantial Risk
F. Potential maintenance, repair, retrieval (unplanned events) - Broken/stuck drill rod or casing - Stuck pump - Fishing tools from hole - Welding repairs - Pump repairs and electrical line repair - Hoist repairs/replacement	**Yes** Drill rig, crane, winch hoist, welder	**Yes**	**Yes** Management of Change	Motion Electrical Thermal Pressure Gravity Radiation	**Broken/stuck drill rod:** Use of down hole fishing tools & hoist line, potential pressure on hoist rope, hydraulics. **Stuck pump:** Use of hoist line to pull pump, potential failure of rope. May need to pull well casing to get pump out if hoist is anadequate. Hazards of handling core and casing at the same time. **Pump repair:** May need to replace discharge hose, patch or replace electrical line, add more length to hose or electrical (splice together), coil on to a spool, change out pump type, clean and change pump impeller or other parts. Manual handling with pinch points and hand injury. **Welding repairs:** Fire, spark, burns, eye injury from radiation. **Hoist repair:** Need to work at heights (cherry picker) or on drill rig with mast down, falling potential. Manual handling, tools.	**Yes** Potential release of fuel or hydraulic fluids to soil	Unusual Exposure	Disastrous Consequence	Unusual but possible	High Risk	**Yes** Working at Heights Hot Work	***NOTE: Conduct field assessment with work team, field supervisor. Document safety risk assessment on TSEA, document as MOC if required.** **Broken/stuck drill rod:** Assess the hazards of using fishing tools, ensure driller & helpers positioned in safe location on drill deck; be aware of potential for added strain on hoist rope. **Stuck pump:** Monitor strain on hoist rope; use pressure relief system to prevent overloading rope beyond breaking capacity. Reduce potential for getting pump stuck by lowering in 10 ft increments to purge high turbidity water. **Pump repairs:** Ensure replacement parts are equivalent or rated for the usage, disconnect pump from power source before making repairs. **Welding repairs:** Follow appropriate hot work procedures depending on location and hazards (hot work permit, wet down area, fire watch, fire extinguisher on hand). **Hoist Repair:** Working at heights permit and fall protection equipment as needed. Wear gloves, inspect new hoist line.	Boart drill crew	Unusual Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk

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G. Set temporary well and collect zonal groundwater samples (Sonic Drill) - Install temporary well and packers inside drill casing - Install purge pump and purge 2x casing volume - Install sampling pump (if req'd) - Collect samples and conduct field analysis with test kits - Decon pump - Remove temporary well and continue drilling	**Yes** Drill rig, pressurized gas cylinder, pumps, generator.	**Yes**	**No**	Motion Gravity Chemical Pressure Electrical Biological	**Motion/gravity:** Use of cable line to lower pumps into well can result in hand injury from cable motion; pump may become stuck in borehole and excessive pressure on wire rope during removal could cause rope to break; coiled tubing on sample pumps can create a tripping hazard; glasswear in field test kits can break and cause lacerations. Use of crane or skid steer to load pump reel on drill deck. **Chemical:** Contact with contaminated water in select wells can result in skin irritation; chemicals and acid preservatives in sample bottles and field test kits can cause chemical burn. **Pressure:** Pressurized gas cylinders or air compressor can have sudden release of pressure if hose or fitting breaks. **Electrical:** Potential contact with low voltage electrical current from generator. Use of extension cords could allow exposure to electrical shock; potential for cords on spools to generate heat and melt insulation during usage. **Biological:** Potential for rodent holes that collapse, ant hills, tripping hazards in drill work area.	**No**	Continuous Exposure	Serious Consequence	Remotely possible	Substantial Risk	**No**	**Motion/gravity:** Wear gloves and no loose-fitting clothing when working with cable line; monitor tension on hoist cable and stand clear if there is too much tension; ensure drills are equipped with pressure limit to prevent over stressing the wire rope in this situation; use good housekeeping to keep sample tubing from creating tripping hazard or mark hazard with cone or flagging; wear nitrile gloves when handling glasswear and create work space that minimizes potential for glasswear to fall. **Chemical:** Wear nitril gloves when handling water samples, sample containers or field test kits; wear safety glasses. **Pressure:** Inspect pressurized hoses for damage before use; ensure all connections are firmly connected; use whip checks on pressurized lines. **Electrical:** Inspect electrical cords, do not allow cords to sit in water, do not stand in water when turning generator on/off. Do not use extension cords while on spool. **Biological:** Smooth out work area if needed; collapse and fill in rodent holes, mark out tripping hazards with cone or flagging.	Boart drill crew; BC field staff	Frequent Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk
H. Transport collected core samples to mine for storage and prepare water samples for shipment to lab - Place plastic core sleeves in core boxes - Place full core boxes in truck or trailer - Haul core boxes to designated storage area and stack on pallets - Pack and ship water samples	**No**	**No**	**No**	Motion Gravity Biological	**Motion/gravity:** Handling of core boxes can cause back strain and hand injury from cuts or splinters; stacking core boxes on pallets can create unstable stack that could collapse; full sample coolers for shipment to lab can be heavy and cause back strain when loading/unloading in truck. Potential for property damage when backing up to hitch trailer to truck (scratched paint, dented bumper) **Biological:** Truck shop building where core are stored has dust and rodent/bird feces that could cause respiratory illness if inhaled.	**No**	Frequent Exposure	Serious Consequence	Conceivable but unlikely	Low Risk	**No**	**Motion/gravity:** Wear gloves when handling core boxes; establish safe height that boxes can be stacked to prevent toppling (dependent on type of core box used); limit cooler weight to <50 lbs and use tools (cart, dolly) to transport and load as needed. Use spotter when hitching trailer (if feasible), ensure hitch and safety chains are fully secure. **Biological:** Minimize dust disturbance in buildings and wear disposable dust mast if sweeping or other activity that creates dust.	Boart drill crew	Occasional Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk
I. Decon drill rod and casing with pressure washer and/or hose between boreholes - Drive pipe truck to decon area - Use pressure washer to wash drill pipe on truck	**Yes** Pressure washer, forklift	**Yes**	**No**	Pressure Motion	**Pressure:** Pressurized water stream can cause injury to skin or eyes if directed at a person or if splashed back onto a person. **Motion:** Handling of drill rods and casing can cause back strain, muscle strain, pinched hand injuries. Movement of forklift could strike a person on the ground, unsecured loads could fall off lift. Unintended movement of truck could occur when parked on slope.	**Yes** Wash water may contain contaminants from well water or soil which could be released to the soil if not contained	Occasional Exposure	Important Consequence	Unusual but possible	Low Risk	**No**	**Pressure:** Workers should wear safety glasses, gloves and face shield (if appropriate) when using pressure washer; only authorized and competent workers should operate pressure washer and keep others out of the hazard area when operating. **Motion:** For lifts >50 lbs use 2-person lift; ensure workers are trained in proper lifting techniques. Wear leather or rubber coated gloves when handling materials. Only trained operators on forklift; communicate actions to workers on the ground; ensure load is securely on the forks. Use wheel chocks when parked.	Boart drill crew	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk
J. Install monitor well - Place PVC screen and blank in borehole - Place sand pack around screen - Place Bentonite plug - Place cement grout to ground surface - Install well monument and concrete base	**Yes** Drill rig	**Yes**	**No**	Motion Chemical Gravity	**Motion:** Drill rig still being used to pull casing up, potential pinch points, hand injuries (refer to drilling hazards). Cement or bentonite grout is prepared in mixer unit with rotating paddle mixer (enclosed), potential hand injury. Hammer & nail construction of 2x4 frame, use of hand saw to cut to length, potential hand injuries. **Chemical:** Cement powder can cause irritation of lungs, skin and eyes. **Gravity:** Bags of cement and sand can be very heavy (50-100 lbs) creating potential for back injury. Awkward, heavy lifting of well monument.	**No**	Occasional Exposure	Serious Consequence	Unusual but possible	Low Risk	**No**	**Motion:** Wear leather gloves for all manual handling **Chemical:** Handle cement and silica sand in a way that minimizes dust or wear disposable dust mask if applicable; keep sleeves down at wrists to protect skin. **Gravity:** For lifts >50 lbs use 2-person lift; ensure workers are trained in proper lifting techniques.	Boart drill crew	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk
K. Develop monitor well - Set up well development rig at well location - Use cable line with swab and bail tools attachments as needed - Swab screen interval with up-down motion - Use bailer to remove sediment - Install submersible pump to purge well until turbidity requirement met	**Yes** Well development rig	**Yes**	**No**	Motion Chemical Gravity	**Motion:** Backing vehicle to well has potential limited visibility and potential to strike nearby surface structures; setting up, raising mast, movement of cable line and tools could strike someone; up/down movement of cable line could snag clothing or injure hand. **Chemical:** Potential contact with contaminated groundwater (high metals, low pH) could result in minor skin irritation/rash. **Gravity:** Working in area of raised mast creates potential of objects fall from mast and striking workers; working near steep slopes creates falling hazard.	**Yes** Purge water from wells on mine may contain high metals and low pH, must be contained	Frequent Exposure	Serious Consequence	Unusual but possible	Substantial Risk	**No**	**Motion/gravity:** Use spotter when backing to well; restricted access to work area - use barricades to prevent unauthorized access; mark or barricade other potential falling hazards near work area; do not wear loose fitting clothing; wear leather gloves when operating or attaching tools to the cable line. **Chemical:** Wear nitrile gloves when potential contact with groundwater.	Boart development crew	Frequent Exposure	Important Consequence	Remotely possible	Minimal Risk